


<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number Q81128	
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number 10/829,177	Filed April 22, 2004	
	First Named Inventor Hiroshi TAKEDA		
	Art Unit 2629	Examiner Abbas I. ABDULSELAM	
WASHINGTON OFFICE <b>23373</b> CUSTOMER NUMBER			
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal</p> <p>The review is requested for the reasons(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p><input checked="" type="checkbox"/> I am an attorney or agent of record. Registration number    59,080</p> <p> Signature</p> <p>Peter W. Bradford Typed or printed name</p> <p>(202) 293-7060 Telephone number</p> <p>March 10, 2009 Date</p>			

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q81128

Hiroshi TAKEDA, et al.

Appln. No.: 10/829,177

Group Art Unit: 2629

Confirmation No.: 6047

Examiner: Abbas I. ABDULSELAM

Filed: April 22, 2004

For: LIQUID CRYSTAL DISPLAY APPARATUS AND METHOD OF DRIVING LCD  
PANEL

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to the Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated November 17, 2008, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue:

Claim 1 recites in part:

a driving circuit for successively generating a plurality of write-in voltages, successively selecting each of said row lines and supplying said write-in voltages from end points of the column lines to the liquid crystal cells of the selected row line for a period corresponding to a distance from the selected row line to said end points; *wherein said period corresponding to a distance increases as a function of the distance from the selected row line to said end points.*

In rejecting this claim, the Examiner cites two references, Morita and Ueda. The Examiner admits that Morita does not teach or suggest the last portion of claim 1 (italicized above); rather, the Examiner asserts that it is taught by Ueda, and it would have been obvious to alter Morita to include this feature (Office Action of 11/17/09, page 4).

Applicant respectfully asserts that Morita and Ueda do not render the claimed invention obvious at least for the following reasons:

- 1) Ueda does not disclose the claimed feature.
- 2) Ueda teaches away from the claimed feature.
- 3) Morita teaches away from the claimed feature.
- 4) Morita and Ueda each teach different approaches to solving the same problem, and thus their combination would overcorrect.
- 5) The problems addressed by Morita and Ueda are similar to each other and similar to the problem addressed by embodiments of the present invention. Morita and Ueda each would have suggested to one of skill in the art the solve the problem its own way, not in the way the claimed invention solves it.

**Ueda does not disclose the claimed feature**

Claim 1 recites “supplying said write-in voltages ... for a period corresponding to a distance ... wherein said period corresponding to a distance increases as a function of the distance from the selected row line to said end points.” Claim 1 thus recites that the period of the *write in voltages* increases with distance from the row line to the end points. For this, the Examiner cites figure 13 of Ueda, which shows that “the *precharge periods* for the respective scan lines are made longer with increase in distance from the drain driver 130 to the respective

scan lines” (Ueda, col. 16, ll. 42-44). Thus Ueda does not disclose altering the write in periods, but rather the precharge periods.

In a telephone conversation, the Examiner stated that the period of any voltage could be used to teach this feature. However, this is manifestly incorrect. The different voltages play different roles in Ueda, and one of skill in the art would not have thought them interchangeable. More importantly, Ueda specifically states that the length of the write in voltage periods are in fact short and cannot be lengthed.

**Ueda teaches away from the claimed feature.**

Ueda discloses that “with the increase in the number of horizontal scanning lines in one vertical scanning period, time available for writing per horizontal line **is decreased**”, which can cause “pixel writing voltages [to become] insufficient” and display deterioration (col. 3, ll. 17-26). Ueda therefore offers increased precharge period as a solution to a problem of decreased time available for write in voltages. If the writing periods were increased in the system of Ueda, then the solution that Ueda presents would be moot. The Examiner asserts Ueda would suggest to increase the writing time, when Ueda discloses time available for writing ... **is decreased**. In fact, Ueda teaches away from the claimed feature.

**Morita teaches away from the claimed feature**

Furthermore, even if Ueda did teach this feature, one of skill in the art would not have incorporated it into Morita, because Morita teaches away from this feature as well. Morita discloses that his invention “has an objective ... of charging a selected pixel to a predetermined voltage within a *predetermined time period*” (col. 1, ll. 60-62). That is, Morita is concerned with keeping the signal voltage charging period sufficiently short. Morita accomplishes this by

altering the voltage of the signal with “a voltage transformation circuit which changes a voltage of the data signal” (col. 2, ll. 8-9). These altered voltages can be seen in figures 10A-10C and 11A-11C. Morita, just like Ueda, has a constraint on write in voltage periods within which he works. Morita’s solution is alter the voltage levels. To alter the periods of Morita would counter his objective of “charging a selected pixel to a predetermined voltage within a predetermined time period”. “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious” (MPEP § 2143.01).

**The combination of Morita and Ueda would overcorrect**

Furthermore, if one were to alter the teachings of Morita as the Examiner suggests, an inoperable system would result. The alteration of voltages of Morita and the alteration of write in voltage periods as in the present claimed invention are two ways of addressing the same problem. As explained for fully in the Amendment of January 15, 2009, incorporating the features of both into the same system would overcorrect, and the systems would interfere with each other, and thus render each technique “inoperable for its intended use ” (MPEP § 2143.01).

**Morita and Ueda each suggest an alternative method to solve the same problem**

Ueda and Morita both present ways of dealing with non-uniform luminance in LCDs (Morita col. 1, ll. 28-33; Ueda col. 17, ll. 46-50). One of skill in the art would use one or the other, not both. Furthermore, each solution (one using increased voltages, the other using precharges) is an *alternative*, different solution to the present claimed invention. The Examiner’s rejection is analogous to saying that halogen blubs, together with florescent bulbs, would have taught one to use LEDs as a solution to inefficient incandescent bulbs.

Importantly, each reference explicitly teaches a solution that addresses a fixed, short write in voltage period, as opposed to suggesting lengthening that period (Ueda, col. 3, ll. 17-26; Morita, col. 1, ll. 60-62). Neither Morita nor Ueda, nor any combination of the two, would teach one of skill in the art to create a system as claimed, "wherein said period corresponding to a distance increases as a function of the distance from the selected row line to said end points".

Claim 1 is therefore patentable over the cited references. The other independent claims 11 and 15 recite analogous features and are therefore analogously patentable. The remaining claims are patentable at least due to their dependencies.

Applicant therefore respectfully requests the Examiner to withdraw the rejections of the claims. If the Panel has any questions, please feel free to contact the undersigned by calling the telephone number below.

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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: March 10, 2009

Respectfully submitted,



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